

REMARKS / ARGUMENTS

Claims 43-46 remain pending in this application. Claims 1-42 have been canceled without prejudice or disclaimer. New claims 43-46 have been added.

Information Disclosure Statement

Applicants respectfully request the Examiner initial references AR and AS, sign and return a copy of the PTO-1449 Form filed on February 28, 2002. These references had been crossed out in the copy of the PTO-1449 Form returned with the Office Action. Applicants respectfully request the Examiner to indicate consideration of these documents. A clean copy of the PTO-1449 Form as well as a copy of the returned PTO-1449 Form are enclosed for the Examiner's convenience.

35 U.S.C. §103

Claims 1-19, 21-39 and 41-42 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Lowenthal et al (U.S. Patent No. 6,035,306) in view of Ledain et al (U.S. Patent No. 6,021,408). These rejections are traversed as follows.

According to the present invention, a data position management server stores table data and index data (or log data and other database data) in different physical storage devices so as to enable these devices to be accessed simultaneously.

New claim 43 is directed to a data relocation method in a computer system having a data position management server for managing positions of database data

in the computer system. The method includes the steps of acquiring information on the database including table data and index data to the table data, determining relocation of database data on the basis of the database information acquired, instructing the storage control means to migrate database data to prevent the storage control means from accessing the table data and the index data simultaneously in a same physical storage device, and changing allocation of database data so that the table data and the index data are stored in different physical storage devices. Similar limitations are recited in claim 44, except that claim 44 recites log data and database data other than log data. New claims 45 and 46 are system claims corresponding to method claims 43 and 44. Therefore, it is clear that the pending claims recite that table data and index data (or log data and database data other than log data) are stored in different physical storage devices to enable these data to be accessed simultaneously.

Lowenthal et al disclose a method for improving performance of large databases in which storage information is monitored at three levels: database files, file system files and individual disk drives (see Abstract). The analysis tool of Lowenthal et al has a map of the logical and physical arrangement of the database being monitored and allows a database administrator (DBA) to move from level to level of both logical and physical structures while displaying I/O activity (see Abstract). The Examiner points out column 3, lines 1-8 and column 13, lines 35-67 of Lowenthal et al on page 8 of the Office Action. However, these portions do not disclose that table data and index data that are to be simultaneously accessed with a

high possibility are located at different physical storage devices to improve performance characteristics.

The deficiencies in Lowenthal et al are not overcome by resort to Ledain et al. Ledain et al disclose a method for operating a log device in which a control program utilizes location data provided in file and system data to identify a destination storage location for the filing system data within a main file system layout (see Abstract).

The Examiner states that "Lowenthal does not explicitly teach data position management server and instructing said storage control means of data migration to realize said data allocation determined by said data position management server" on page 4, lines 11-14 of the Office Action. This statement is repeated in other portions of the Office Action. The Examiner then states that "Ledain teaches log device itself may be physically structured as a mirrored or RAID based disk drive subsystem operating from the same or a different disk drive controller as the main file system storage devices and write migration of data to the logged file system itself from the log device disk (col. 7, lines 1-18 and col. 10, lines 8-15, and lines 35-45)."

Notwithstanding Ledain et al's disclosure in these portions cited by the Examiner, Ledain et al do not disclose the storing of table data and index data (or log data and database data other than log data) in different physical storage devices so as to be simultaneously accessed such that in combination with the disclosure of Lowenthal et al would render these presently claimed invention unpatentable. As such, it is submitted that the pending claims patentably define the present invention over the cited art.

Appl. No. 10/084,540
Amendment dated April 25, 2005
Reply to Office Action of January 26, 2005


ASA-1072

Conclusion

In view of the foregoing, Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

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